Nuctech Co Ltd v Pan Asiatic Technologies Sdn Bhd & Ors (Powerscan Co Ltd, third party) and another suit

HIGH COURT (KUALA LUMPUR) — SUIT NOS 22IP-43–11 OF 2013 AND 22IP-24–05 OF 2014
AZIZAH NAWAWI J
27 JANUARY 2016

Patent — Infringement — Novelty — Allegation of patent infringement — Aggrieved persons — Whether patent valid — Whether there were infringements — Whether supplier had to indemnify company in event of infringement — Whether directors of company that allegedly infringed patent jointly and/or severally liable to company that owned patent — Patents Act 1983 ss 14 & 15

The plaintiff, a company incorporated in China, carried on the business as a manufacturer, supplier, distributor and/or exporter of security inspection product and adviser on security solutions specialised in radiation imaging technology. The plaintiff was one of the owners of MY '862 Patent titled 'system for image inspection of movable object and dodging method'. The first defendant, was a Malaysian company and ran the business of operating, maintenance services, promotions and sales of high-tech equipment. The second to fourth defendants were directors and shareholders of the first defendant. The plaintiff claimed that the defendants' two units of BT Scan X-Ray Screening System ('BT Scan'), have infringed claim 1, 7, 8, 9, 11 and 12 of the plaintiff's MY '862 Patent. The plaintiff also claimed that the defendants' four units of BP SCAN — M1 Portal X-Ray Screening System ('BP Scan'), have threatened to infringe claim 1, 7, 8, 9, 11 and 12 of the plaintiff's MY '862 Patent. The defendants brought in a third party in the main suit, the supplier of the two units of BT SCAN and the four units of BP SCAN. The defendants and the third party filed a counterclaim seeking to invalidate the MY '862 Patent on the grounds that that the MY '862 Patent lacked in novelty and/or was anticipated by prior arts as at its priority date under s 14 of the Patents Act 1983 ('the Act'); and/or that the said patent did not involve any inventive step under s 15 of the same Act. The issues that arose were whether the first defendant and the third party were aggrieved persons under the Act; whether the MY '862 Patent was valid; whether the defendants' BT Scan infringed the plaintiff's MY '862 Patent; whether the defendants' BP Scan infringed the plaintiff's MY '862 Patent; whether the third party had to indemnify the first defendant in the event of infringement; and whether the second to fourth defendants were jointly and/or severally liable to the plaintiff.

Held:

(1) It undisputed fact that both the plaintiff and the third party were engaged in the same or similar business. The first defendant was also involved in the same business, after having an earlier contractual relationship with the plaintiff, entered into a contractual relationship with the third party for the supply of the same technology, as in the BT Scan and the BP Scan. In the premise, both the first defendant and the third party were not mere busybodies, but were 'persons aggrieved', as they are parties who were prejudiced by the filing of the plaintiff's MY '862 Patent (see paras 22–23).

(2) The third party failed to prove on the balance of probability that the MY '862 Patent lacked novelty. The third party failed to establish that each and every ingredient of claim 1 of MY '862 Patent was present in the Muenchau Patent. Therefore, the Muenchau Patent did not anticipate MY '862 Patent and the plaintiff's Patent MY '862 was novel. Both the defendants and the third party failed to establish, on the balance of probability, that the MY '862 Patent lacked in inventive steps. The defendants and the third party also failed to establish their respective cases, on the balance of probability, that the MY '862 Patent was not novel and did not involve any inventive step. The defendants' counterclaim and the third party suit were dismissed with costs (see paras 55 & 85).

(3) The BT Scan did have a system that functions as the first detecting unit. The existence of the ground coil, boom gate and light curtain at the entrance of the passage could function as first detecting unit and they could also be absorbed to perform other things as well, such as licensing plate recognition. It was not in dispute that the first defendant's BT Scan was supplied and delivered by the third party. It was also not disputed that under their contract, the third party will be liable to indemnify the first defendant against all action, claims and liabilities on account of infringement of rights of intellectual property. In the premise, the first defendant's claim for indemnity against the third party was allowed (see paras 103 & 137).

(4) The plaintiff's claim against the first and second defendants and its counterclaim against the third party were allowed with costs. The defendants' counterclaim and the third party's claim were dismissed with costs. The defendants' claim against the third party for indemnity was allowed with costs (see paras 139–140).

[Bahasa Malaysia summary

Plaintif, sebuah syarikat yang diperbadankan di China, menjalankan perniagaan sebagai pengeluar, pembekal, pengedar dan/atau pengeksport produk pemeriksaan keselamatan dan penasihat kepada penyelesaian

keselamatan khusus dalam teknologi pengimejan radiasi. Plaintif merupakan salah seorang daripada pemilik Paten MY '862 bertajuk 'sistem untuk pemeriksaan imej objek alih dan kaedah mengelak'. Defendan pertama, adalah sebuah syarikat Malaysia dan menjalankan perniagaan mengendalikan, perkhidmatan penyelenggaraan, promosi dan penjualan peralatan berteknologi tinggi. Defendan kedua hingga keempat adalah pengarah dan pemegang saham defendan pertama. Plaintif mendakwa dua unit Sistem Saringan BT Scan X-Ray ('BT Scan') defendan telah melanggar tuntutan 1, 7, 8, 9, 11 dan 12 Paten MY '862 plaintif. Plaintif juga mendakwa empat unit BPSCAN — Sistem Saringan M1 Portal X-Ray ('BP Scan') defendan telah mengancam untuk melanggar tuntutan 1, 7, 8, 9, 11 dan 12 paten MY '862 plaintif. Defendan membawa masuk pihak ketiga dalam saman utama, pembekal kepada dua unit BT Scan dan empat unit BP Scan. Defendan-defendan dan pihak ketiga memfailkan tuntutan balas memohon untuk membatalkan paten MY '862 atas alasan bahawa Paten MY '862 kekurangan dalam sesuatu yang baru dan/atau telah dijangkakan oleh seni terlebih dahulu pada tarikh keutamaan di bawah s 14 Akta Paten yang 1983 ('Akta'); dan/atau bahawa paten tersebut tidak melibatkan sebarang langkah berdaya cipta di bawah s 15 Akta yang sama. Isu-isu yang timbul adalah sama ada defendan pertama dan pihak ketiga adalah orang yang terkilan di bawah Akta; sama ada paten MY '862 adalah sah; sama ada BT Scan defendan melanggar paten MY '862 plaintif; sama ada BP Scan defendan melanggar Paten MY '862 plaintif; sama ada pihak ketiga perlu menanggung rugi defendan pertama sekiranya berlaku pelanggaran; dan sama ada defendan kedua hingga keempat adalah secara bersama dan/atau berasingan bertanggungan kepada plaintif.

Diputuskan:

(1) Tidak dipertikaikan hakikat bahawa kedua-dua plaintif dan pihak ketiga yang terlibat dalam perniagaan yang sama atau serupa. Defendan pertama juga terlibat dalam perniagaan yang sama, selepas pada mulanya mempunyai hubungan kontrak dengan plaintif, memeterai hubungan kontrak dengan pihak ketiga untuk pembekalan teknologi yang sama, seperti dalam BT Scan dan BP Scan. Dalam premis tersebut, kedua-dua defendan pertama dan pihak ketiga bukanlah hanya 'busybodies', tetapi adalah 'orang yang terkilan', kerana mereka adalah pihak yang telah dijejaskan oleh pemfailan Paten MY '862 plaintif (lihat perenggan 22–23).

(2) Pihak ketiga gagal membuktikan atas imbangan kebarangkalian bahawa Paten MY '862 kekurangan sesuatu yang baru. Pihak ketiga gagal membuktikan bahawa setiap satu kandungan dalam tuntutan 1 daripada Paten MY '862 ada pada Paten Muenchau. Oleh itu, Paten Muenchau tidak mengalahkan Paten MY '862 dan Paten MY '862 plaintif adalah baru. Kedua-dua defendan dan pihak ketiga gagal untuk membuktikan,

atas imbangan kebarangkalian, bahawa Paten MY '862 tidak baru dan melibatkan sebarang langkah-langkah berdaya cipta. Defendan dan pihak ketiga juga gagal membuktikan kes masing-masing, atas imbangan kebarangkalian, bahawa MY '862 Paten bukan novel dan tidak melibatkan apa-apa langkah berdaya cipta. Tuntutan balas defendan-defendan dan saman pihak ketiga ditolak dengan kos (lihat perenggan 55 & 85).

(3) BT Scan memang mempunyai satu sistem yang berfungsi sebagai unit mengesan pertama. Kewujudan 'ground coil', 'boom gate' dan tirai cahaya di pintu masuk laluan boleh berfungsi sebagai unit mengesan pertama dan mereka juga boleh diserap untuk melaksanakan perkara-perkara lain juga, seperti pengecaman plat pelesenan. Tidak dipertikaikan bahawa BT Scan defendan pertama dibekalkan dan diserahkan oleh pihak ketiga. Tidak juga dipertikaikan bahawa di bawah kontrak mereka, pihak ketiga akan bertanggungjawab untuk menanggung rugi defendan pertama terhadap semua tindakan, tuntutan dan liabiliti disebabkan pelanggaran hak harta intelek. Dalam premis tersebut, tuntutan defendan pertama untuk perlindungan terhadap pihak ketiga dibenarkan (lihat perenggan 103 & 137).

(4) Tuntutan plaintif terhadap defendan pertama dan kedua dan tuntutan balasnya terhadap pihak ketiga dibenarkan dengan kos. Tuntutan balas defendan dan tuntutan pihak ketiga telah ditolak dengan kos. Tuntutan defendan terhadap pihak ketiga untuk perlindungan telah dibenarkan dengan kos (lihat perenggan 139–140).]

Notes

For a case on novelty of infringement, see 10(1) *Mallal's Digest* (5th Ed, 2015) para 1280.

Cases referred to

Besalon International Ltd & Ors v South Strong Industries Sdn Bhd [1997] 2 MLJ 131, HC (refd)

Cadware Sdn Bhd v Ronic Corporation [2013] 6 MLJ 19, CA (refd)

Catnic Components Ltd & Anor v Hill & Smith Ltd [1982] RPC 183, HL (refd)

Heveafoam Asia Sdn Bhd v PF (Teknologi) Sdn Bhd [2001] 2 MLJ 660, HC (refd)

IEV International Pty Ltd v Sadacharamani a/l Govindasamy [2008] 2 MLJ 754, HC (refd)

Kendek Industry Sdn Bhd v Ecotherm (TFT) Sdn Bhd [2010] MLJU 333; [2010] 10 CLJ 219, HC (refd)

Lim Choong Huat & Ors v SYNTLZ Enterprise Sdn Bhd & Ors [2010] 1 CLJ 860, HC (refd)

PP v Lin Lian Chen [1992] 2 MLJ 561, SC (refd)

Ranbaxy (M) Sdn Bhd v El Du Pont Nemours and Co [2012] 4 MLJ 34, CA (refd)
Sanofi-Aventis (Malaysia) Sdn Bhd & Anor v Fresenius Kabi (Malaysia) Sdn Bhd [2012] 4 CLJ 532, HC (refd)
Seng Kong Shutter Industries & Anor v SKB Shutters Manufacturing Sdn Bhd [2014] 5 MLJ 98; [2014] 4 CLJ 1037, CA (refd)
Technograph Printed Circuits Ltd v Mills & Rockley (Electronics) Ltd [1972] RPC 346, HL (refd)
Windsurfing International Inc v Tabur Marine (Great Britain) Ltd [1985] RPC 59, CA (refd)

Legislation referred to

Patents Act 1983 ss 11, 14, 14(1), (2)(a), 15, 56(1), (2)(a), 58

Khoo Guan Huat (Kuek PeiYee and Joshua Teoh Beni Chris with him) (Skrine) for the plaintiff.
Lee Chan Leong (Peter Siew Kuan Oon and Emily Siew Ee Mei with him) (Chan Leong & Co) for the defendants.
Steven Cheok Hou Cher (Sri Sarguna Raj and Nicole Chong with him) (Kandiah & Sri) for the third party in Suit No 22IP-24–05 of 2013.

Azizah Nawawi J:

INTRODUCTION

[1] There are two consolidated suits before me:

(a) Suit 22IP-43–11 of 2013:

(i) the plaintiff, Nuctech Co Ltd ('the plaintiff') sued Pan Asiatic Technologies Sdn Bhd and 3 others ('the defendants') seeking to declare that the Malaysian Patent No MY 142862 ('MY '862 Patent') has been infringed by the defendants, an injunction to restrain defendants from dealing in whatsoever manner with the Patent MY '862, an order for delivery and for damages;

(ii) the defendants filed a counterclaim seeking to declare the MY '862 Patent to be invalid and an injunction against the plaintiff from slandering or interfering with the defendant's trade and businesses and for damages; and

(iii) the defendants, in a third party proceedings, sued Powerscan Co Ltd ('the third party') for indemnity under clauses 4.2 and 27.2 of the contract dated 19 September 2011 against any action on account of infringement of intellectual property rights, which was admitted by the third party in para 6 of its statement of defence;

(b) Suit 22IP-24–05 of 2014:

(i) Powerscan Co Ltd ('the third party') sued the plaintiff and Tsinghua University seeking to declare MY '862 Patent to be invalid and that the same be revoked; and

(ii) in its counterclaim, the plaintiff is seeking to declare that it's MY '862 Patent had been infringed by the third party, injunctive orders, delivery orders and damages against the third party.

[2] After a full trial, this court has allowed the plaintiff's claim and dismissed the defendants' counterclaim and the third party's claim in Suit 22IP-24–05 of 2014. The defendant's indemnity claim against the third party was also allowed.

THE SALIENT FACTS

[3] The plaintiff is a company incorporated in the People's Republic of China, and is based in Beijing. The plaintiff carries on the business as a manufacturer, supplier, distributor and/or exporter of security inspection product and adviser on security solutions specialised in radiation imaging technology.

[4] The plaintiff, together with Tsinghua University, People's Republic of China, are the owners of MY '862 Patent, granted on 14 January 2011 and titled 'System for image inspection of movable object and dodging method'.

[5] The first defendant, Pan Asiatic Technologies Sdn Bhd ('PAT') is a company incorporated in Malaysia with its registered address in Kuala Lumpur. The first defendant business is in operating, maintenance services, promotions and sales of high-tech equipment.

[6] The second, third and fourth defendants are directors and shareholders of the first defendant.

[7] The third party is a company incorporated in the People's Republic of China. Similar to the plaintiff's business, the business of the third party is as a manufacturer, supplier, distributor and/or exporter of security inspection product and adviser on security solutions specialised in radiation imaging technology.

[8] In or around 2009, the first defendant has secured contracts with the Royal Customs Department of Malaysia for the supply of one unit of THSCAN FS6000 X-ray Fast Scan Container/Vehicle Inspection System to be

installed at North Port, Port Klang. For this purpose, the first defendant has contracted the plaintiff to supply, delivery, commissioning, training and maintenance of the same system.

[9] In or around 2011, the first defendant has secured another contract with the Royal Customs Department of Malaysia for the supply of Screening or Inspecting System to be installed at Customs, Immigration and Quarantine Complex ('the CIQ') at Bukit Cagar, Johor Bahru. For this purpose, the first defendant has entered into an agreement with the third party for the supply of two units of BT Scan P/X Portal X-Ray Screening System ('the BT Scan'). The BT Scan was manufactured by Beijing Detection Technology Inc ('BET'), a company incorporated in People's Republic of China.

[10] The BT Scan, bought by the first defendant and supplied by the third party, was installed at the CIQ, Johor Bahru.

[11] On or about 30 April 2013, the first defendant has secured another contract with the Government of Malaysia for the provision and supply of four units of BPSCAN — M1 Portal X-Ray Screening System ('BP Scan') to the Royal Customs Department of Malaysia through an agreement 'Perjanjian untuk membekal, menghantar, menyedia tapak, memasang, menguju, menyerah, melatih dan menyelenggara empat unit Mesin Pengimbas BPSCAN — M1 Portal X-ray screening system untuk Jabatan Kastam Diraja Malaysia (No Perjanjian KE HW (84) 426/02–65/2013)'.

[12] The plaintiff claims that the defendants' two units of BT Scan P/X Portal X-Ray Screening System, have infringed claim 1, 7, 8, 9, 11 and 12 of the plaintiff's MY '862 Patent.

[13] The plaintiff also claimed that the defendants' four units of BPSCAN — M1 Portal X-Ray Screening System, as provided in the contract dated 30 April 2013 have threatened to infringe claim 1, 7, 8, 9, 11 and 12 of the plaintiff's MY '862 Patent.

[14] The claims of a patent specification refers to the part of the patent specification which delineates the boundary or monopolistic rights of the patent owner seeks to obtain. Claim 1 is an independent claim, whilst claim 7 is dependent on claim 1 and claim 8 is dependent on claim 7. Claim 9 is an independent claim, whilst claims 11 and 12 are dependent on claim 9. Claim 1 is a product claim whereas claim 9 is a process claim.

[15] The said claims 1, 7, 8, 9, 11 and 12 of the plaintiff's MY '862 Patent reads as follows:

Claim 1

A system for imaging inspection of a movable object (15) comprising:

a first detecting unit (101) configures to detect whether a moving object (15) to be inspected moves into a passage (14) or not;

a second detecting unit (201) configured to detect whether a part (16) to be shielded of the moving object (15) passed into the passage or not and generate a passing signal after the first detecting unit (101) detects that the moving object (15) to be inspected moves into the passage (14);

a scan imaging device (104) configures to emit radiating beams for inspecting moving object (15) to be inspected by scanning; and

a control system (103) configured to generate a control signal for controlling the scan imaging device (104) to generate the radiating beams according to the passing signal from the second detecting unit (201).

Claim 7

The system for imaging inspection of a movable object (15) according to claim 1, wherein the moving object is a vehicle.

Claim 8

The system for imaging inspection of a movable object (15) according to claim 7, wherein the part (16) to be shielded is a driving cab of the vehicle.

Claim 9

A dodging method for a moving object (15) being image inspected, comprising:

a first determining step of judging whether the moving object (15) moves into a passage (14) or not;

a second determining step of judging whether a part (16) to be shielded of the moving object passes (15) through a radiation scan area in the passage and generate a passing signal; and

a scan imaging step of generating a control signal for controlling a scan imaging device to generate radiating beams according to the passing signal, after judging that the part to shielded passes through the radiating scan area, to emit radiating beam to the passage and inspect the moving object (15) by scanning to dodge the area to shielded.

Claim 11

The dodging method for a moving object (15) being image inspected according to claim 9, wherein the moving object (15) is a vehicle.

Claim 12

The dodging method for a moving object (15) being image inspected according to claim 9, wherein a part (16) to be shielded is a driving cab of the vehicle.

[16] The defendants brought in the third party in the main suit, the supplier of the two units of BT Scan and the four units of BP Scan. The defendants has also filed a counterclaim seeking to invalidate the MY '862 Patent. The third

party filed a suit seeking to invalidate the MY '862 Patent. The grounds for invalidation are that the MY '862 Patent lack in novelty and/or is anticipated by prior arts as at its priority date under s 14 of the Patents Act 1983; and/or that the said patent does not involve any inventive step under s 15 of the same Act.

AGREED ISSUES TO BE TRIED

[17] The parties have agreed to the following issues to be tried:

(i) whether or not the MY '862 Patent is valid;

(ii) if the MY '862 Patent is valid, whether the MY '862 Patent is infringed by the first defendant and the third party in respect of:

(a) the two units of BT Scan supplied by the first defendant and installed at CIQ Complex in Bukit Chagar, Johor Bahru; and

(b) the four units of BP Scan that form the subject of the agreement entitled 'Perjanjian untuk membekal, menghantar, menyedia tapak, memasang, menguji, menyerah, melatih dan menyelenggara empat unit Mesin Pengimbas BPSAN — M1 Portal X–ray screening system untuk Jabatan Kastam Diraja Malaysia (No Kontrak: KE HW (84) 426/02–65 Tahun 2013)' dated 30 April 2013 between the first defendant and the Government of Malaysia;

(iii) if either one or both of (ii)(a) and (b) above are answered in the positive, are the defendants jointly and/or severally liable for infringement of the MY '862 Patent as a result of the dealings with the cargo scanners described in (ii)(a) and (b) above?;

(iv) are the defendants and the third party 'aggrieved persons' under the Patent Act 1983?

FINDINGS OF THE COURT

[18] For the purpose of this judgment, I will deal with the agreed issues in the following manner:

Issue (1): Whether the first defendant and the third party are aggrieved persons under the Patents Act 1983;

Issue (2): Whether the plaintiffs' MY '862 Patent is valid;

Issue (3): Whether the defendants' BT Scan have infringed the plaintiff's MY '862 Patent;

Issue (4): Whether the defendants' BP Scan have infringed the plaintiff's MY '862 Patent;

Issue (5): Whether the third party has to indemnify the first defendant in the event of infringement; and

A Issue (6): Whether the second, third a/or fourth defendants are jointly and/or severally liable to the plaintiff.

Issue (1): Whether the first defendant and the third party are aggrieved persons under the Patents Act 1983

B

[19] Since the defendants and the third party are seeking to invalidate the plaintiff's MY '862 Patent, the first issue is whether they are aggrieved parties within the ambit of s 56(1) of the Patents Act 1983 which reads:

C Any aggrieved person may institute court proceedings against the owner of the patent for the invalidation of the patent.

[20] The issue of an 'aggrieved party' was raised in the case of *Besalon International Ltd & Ors v South Strong Industries Sdn Bhd* [1997] 2 MLJ 131, D where the court held at p 145:

... Anyone who can show he is in some way prejudiced by the wrongful entry qualifies as a person aggrieved. This can include, but is not limited to, a person who is carrying on a trade in the same sort of goods as the articles for which the design E is registered ... The words 'person aggrieved' or 'prejudicially affected' have been given a wide interpretation as including all persons who have a real practical interest in the issue. This does not necessarily equate with manufacturing rights so long as the plaintiff can show that it has a real practical or genuine interest beyond that of a mere busybody ...

F

[21] The same liberal interpretation to the words 'person aggrieved' was followed by Justice Ramly Ali in *IEV International Pty Ltd v Sadacharamani a/l Govindasamy* [2008] 2 MLJ 754, where His Lordship held that:

G [18] Under s 56(1) of the Patents Act 1983 only 'aggrieved person' may initiate proceedings against the owner of the patent for invalidation order. The words 'person aggrieved' has no special or technical meaning and should be liberally construed. The expression includes anyone who would be or in respect of whom there was a reasonable possibility of his being disadvantaged in a legal or practical sense by the Registrar being uncertified.

H [19] *Anyone who can show he is in some way prejudiced by the wrongful entry qualifies as a person aggrieved*. This can include, but is not limited to, a person who is carrying on trade in the same sort of goods as the articles for which the design is registered. *The words 'person aggrieved' have been given a wide interpretation as including all persons who have a real practical interest in the issue*. (Emphasis added.)

I

[22] It is not in dispute that both the plaintiff and the third party are engaged in the same or similar business, that is as a manufacturer, supplier, distributor and/or exporter of security inspection product and adviser on security solutions specialised in radiation imaging technology. The first defendant is

also involved in the same business, after having an earlier contractual relationship with the plaintiff, has entered into a contractual relationship with the third party for the supply of the same technology, as in the BT Scan and the BP Scan.

[23] In the premise, both the first defendant and the third party are not mere busybodies, but are 'persons aggrieved', as they are parties who are prejudiced by the filing of the plaintiff's MY '862 Patent.

Issue (2): Whether the plaintiff's MY '862 Patent is valid

[24] I am of the considered opinion that before this court deals with the plaintiff's claim on infringement of its MY '862 Patent, this court will have to ascertain if the plaintiff's MY'862 Patent is valid in the first place, as contended by the defendants in their counterclaim and by the third party in Suit 22IP-24–05 of 2014. If this court finds that MY '862 Patent is invalid, then there is no issue of infringement.

[25] The powers of this court to invalidate a patent is provided by s 56(2)(a) which reads:

> The court shall invalidate the patent if the person requesting the invalidation proves what is claimed as an invention in the patent is not an invention within the meaning of s 12 or is excluded from protection under s 13 or sub-s 31(1) or is no patentable because it does not comply with the requirements of ss 11, 14 and 16.

[26] Section 11 provides that an invention is patentable if it is new, involves an inventive step and is industrially applicable.

[27] It is the defendants' contention that the plaintiff's MY '862 Patent lack of inventiveness and must be invalidated.

[28] It is the submission of the third party plaintiff's MY '862 Patent must be invalidated because it is lacking on novelty and inventive step.

[29] Parties are on common ground that the task of this court, in any patent action, is to interpret the terms of the claims in the patent. In *Heveafoam Asia Sdn Bhd v PF (Teknologi) Sdn Bhd* [2001] 2 MLJ 660, Justice Low Hop Bing states as follows:

> The first task of the court in any patent action is to decide exactly what the monopoly the patentee has been granted ...

[30] It is also common ground that the court will require the assistance of the 'persons skilled in the art' to explain the technical details of the patent

specifications. In *Ranbaxy (M) Sdn Bhd v El Du Pont Nemours and Co* [2012] 4 MLJ 34 (CA), Justice Ramly Ali states at p 46:

> Patent specifications (description) are intended to be read by persons skilled in the relevant art, but their construction is for the court. Thus the court must adopt the mantle of the notional skilled addressee and determine, from the language used, what the notional skilled addressee would understand to be the ambit of the claim. To do that it is often necessary for the court to be informed as to the meaning of the technical words and phrases and what was, at the relevant time, the common general knowledge; the knowledge that the notional skilled man would have.

[31] However, at the end of the day, all questions in connection with the interpretation of the claim and specification must be resolved by this court. I find support for this in the judgment of Justice Azhar Mohamad in *Kendek Industry Sdn Bhd v Ecotherm (TFT) Sdn Bhd* [2010] MLJU 333; [2010] 10 CLJ 219 where His Lordship said as follows:

> Thus, it stands established that this court requires the assistance of the man skilled in the art in the exercise of construing the validity of the grant of the UI in question.
>
> ...
>
> *However, at the end of the day, all questions in connection with the interpretation of the claims and specification of the UI must be resolved by this court. It is for this court, not (the witnesses) to come to a decision on the matter of construction*. (Emphasis added.)

Whether MY '862 Patent is novel

[32] On the issue of novelty, s 14(1) of the Patents Act 1983 provides that an *invention is new if it is not anticipated by a prior art.* In the present case, the priority date is the date of the application to register the MY '862 Patent, which was filed on 13 October 2006. Thus this court is only to consider a prior art which existed before the priority date of 13 October 2006.

[33] With regards to the issue of anticipation, that is whether an invention has been disclosed by a prior art, the Court of Appeal in *Seng Kong Shutter Industries & Anor v SKB Shutters Manufacturing Sdn Bhd* [2014] 5 MLJ 98; [2014] 4 CLJ 1037 held as follows:

> ... in considering the issue of whether the plaintiff's patent has been anticipated by a prior art, the correct approach to be adopted is to compare the claims of the plaintiff's patent that defines the invention against the prior Art/PVC Piece. In *General Tire & Rubber Co* cited by learned counsel for the defendants, Sachs LJ in his judgment at p 485 said, inter alia, as follows:
>
> *... To determine whether a patentee's claim has been anticipated by an earlier publication it is necessary to compare the earlier publication with the patentee's claim ... if the earlier publication, so construed, discloses the same device as the device which the patentee by his claim, so construed, asserts that he has invented, the patentee's claim has been*

anticipated, but not otherwise. In such circumstances the patentee is not the true and first inventor of the device and his claimed invention is not new ...

...

The test for establishing lack of novelty is that each and every ingredient, element of the claimed invention must be present in a single prior art ...

[19] Proof that an invention is not new and lacks novelty because it has been anticipated by prior art constitutes a ground for invalidation of such invention (s 56(2) of the Act). *The onus of proof lies, as regards each allegation, on the party launching the attack* ... (Emphasis added.)

[34] Since the issue of novelty was only raised by the third party, therefore the issue here is whether the third party have succeeded in proving, on the balance of probability, that each and every ingredient of MY '862 Patent is present in the prior arts relied by the third party.

[35] It is the submission of the third party that the MY '862 Patent is invalid as it is anticipated by these prior arts:

(i) EP 2093561 (the 'Nuctech's Imaging Patent');

(ii) US 7039159 (the 'Muenchau Patent');

(iii) a combination of Yamada and Muenchau; and

(iv) a combination of Zhou and Muenchau Patent.

[36] The Nuctech Imaging Patent (i) is a European patent granted to the plaintiff and Tsinghua University for a device and method for rapid imaging and inspecting of a moving target. On the issue of novelty, I agree with the submission of the plaintiff that the Nuctech's Imaging patent is not a prior art as the date of priority of both documents are the same, that is 13 October 2006. Section 14(2)(a) of the Patents Act 1983 clearly provides that the publication date of the relevant prior art must be before the priority date of the MY '862 Patent.

[37] With regards to the issue of the combination of prior arts, as in *(iii) a combination of Yamada and Muenchau* and *(iv) a combination of Zhou and Muenchau Patent*, it was held in the case of *Sanofi-Aventis (Malaysia) Sdn Bhd & Anor v Fresenius Kabi (Malaysia) Sdn Bhd* [2012] 4 CLJ 532, that where the issue of novelty was raised, it must be shown that the claimed invention has been anticipated in a single document. At p 568, the court held as follows:

[133] First and foremost, *it is trite law that where lack of novelty is raised, it must be shown that the claimed invention has been anticipated in a single document. No two or more documents is allowed to be combined or mosaic together*. This entrenched principle has been clearly expressed in numerous cases. The learned authors Lionel

Bently and Brad Sherman have put it in this way in Intellectual Property Law, 2nd Ed, 2004 at para 3.2.1 of p 449 that:

> Another important rule of interpretation is that the information must be drawn from a single document. This means that it is not possible to combine together (or mosaic) separate items in prior art. In a similar vein, it is not normally possible to combine elements from within a single document.

[38] Therefore, with regards to the issue of novelty, the combinations of the prior arts cannot be used to challenge the MY '862 Patent.

[39] So what remains is the US' 7039159 Patent, the Muenchau Patent, which was filed on 30 January 2004. The Muenchau Patent is described as a method and system for automatically scanning and imaging the contents of a moving target. For the Muenchau Patent to be a prior art, each and every element of the claimed invention (MY '862 Patent) must be present in the Muenchau Patent.

[40] For the purpose of explaining the technical details of the patent specification, this court will require the assistance of the 'persons skilled in the art'. For this purpose, the plaintiff called PW2, Professor David S Koltick, whilst the third party's relied on the evidence of 3PW4, Mr Mohan Murali Kodival and 3PW2, Mr Wang Shao Feng.

[41] Briefly, Professor Koltick is a professor of physics at Pardue University, West Lafayette, Indiana, United States of America. Professor Koltick has published more than 200 scientific and research papers on homeland security, medical imaging, wire chambers charged particle trackers, scintillating fiber research, D-zero detector, TOPAZ detector, Clark-Gluon Plasma Search Experiment and High Resolution Spectrometer. Besides being involved in research, publishing papers and participating in conferences, Professor Koltick is also the inventor of four granted patents, namely US Patent No 8,373,129 B2 for 'A cargo inspection system for special nuclear materials (SNM)' US Patent No 8,461,534 for 'A system for detection of buried explosives', US Patent No 7,595,494 for 'Direction-sensitive radiation detector and radiation detection method' and US Patent No 7,732,772 for 'A system and method for detecting explosive materials'.

[42] It is the evidence of Professor Koltick that the Muenchau Patent is different from claim 1 of the MY '862 Patent because the Muenchau Patent does not have the following components of the MY '862 Patent:

(a) a first detecting unit configured to detect whether or not a moving object to be inspected moves into a passage;

(b) a second detecting unit configured to detect whether a part to be shielded of the moving object passes into the passage or not;

(c) a second detecting unit configured to generate a passing signal after the first detecting unit detects that the moving object to be inspected moves into the passage; and

(d) a control system configured to generate a control signal for controlling the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit.

[43] Mr Mohan Murali Kodival, in his report, ('B9') states that claim 1 of the MY '862 Patent is anticipated by the Muenchau Patent ('D4'). In his witness statement ('WS3PW4-Q15'), Mr Murali gave the following evidence:

> The defendant ('Nuctech') has failed to establish prima facie how US'159 patent doesn't anticipate claim 1 of '862 Patent. The US'159 patent discloses all the features of claim 1 and claim 9 of the '862 Patent. The use of the first detecting unit and the second detecting unit is identical, combined with a control system for dodging purposes. The claim 1 of the '862 Patent limits the functions of first and second detecting unit to be able to detect arrival of a vehicle into a scanning passage, and to detect whether the part to be shielded has crossed the x-ray source respectively, after which the control system gives a signal to generate x-rays, which is identical to the functions of first and second detecting unit of US'159 patent, along with their control system that generates x-ray only after the part to be shielded has crossed the x-ray source. If there are any differences between the first and second detecting unit, along with any in control system and dodging method thereof, the defendant has failed to characterize those differing features in claim 1, and thus rendering a broad scope to claim such that is clearly anticipated by US'159 patent.

[44] In order to appreciate the Muenchau Patent (US'159), let us look at claim 1–4 of the said patent, which states:

> 1. An automated target inspection system for inspecting a moving target comprising:
>
> a scanning zone comprising a radiation source and a radiation source detector;
>
> a *first sensor component position at a location adjacent the scanning zone for automatically sensing when the first portion of the moving target has passed through the scanning zone and a second portion of the moving target is about to enter the scanning zone, wherein after the first portion of the moving target has passed the first sensor component, the first sensor component sends a signal to the automated target inspection system to initiate a scan of the second portion upon sensing that the second portion of the target is about to enter the scanning zone*; and
>
> a shutter control system comprising a shutter, said shutter triggered by a signal from the first sensor component, for allowing radiation from the radiation source to pass through the scanning zone in the direction of the radiating detector when the

second portion of the moving target is passing through the scanning zone and for closing off the radiation when the second portion of the moving target is no longer within the scanning zone.

2. The system of claim 1, wherein the first portion is a passenger portion.

3. The system of claim 1, wherein the second portion is a payload portion.

4. The system of claim 1, wherein the first sensor component senses a gap between the first portion of the moving target and the second portion of the moving target.

[45] However, having considered the evidence of both Professor Koltick, Mr Murali and the claims in the Muenchau Patent, I agree with the evidence of Professor Koltick that the Muenchau Patent does not have a first detecting unit configured to detect whether or not a moving object to be inspected moves into a passage:

(a) From a reading of the Muenchau Patent, it is clear that no distinction is made of a 'moving object to be inspected' and any other moving objects that are not to be inspected, unlike the case in the '862 Patent.

(b) According to the Muenchau Patent, the first sensor component is for the purpose of sensing when a first portion of the moving target has passed through the scanning zone and a second portion of the moving target is about to enter the scanning zone, and sending a signal to the automated target inspection system to initiate a scan of the second portion.

(c) It is clear that the first sensor component in the Muenchau Patent does not achieve the purposes of detecting whether a moving object to be inspected has entered the passage.

(d) The Muenchau Patent assumes that every object that enters the scanning zone is to be inspected. The '862 Patent makes no such assumption.

[46] Therefore, I am of the considered opinion and I agree with the plaintiff that the first sensor component of the Muenchau Patent cannot be construed as the first detecting unit in the MY '862 Patent.

[47] Added to that, the Muenchau Patent does not have a second detecting unit configured to detect whether a part to be shielded of the moving object passes into the passage or not.

[48] In his report, Mr Murali has equated the second sensor component in claims 8 and 9 of the Muenchau Patent as the second detecting unit in claim 1 of the '862 Patent. In his report, he said this:

... D4 further discloses presence of a second sensor component whose function or arrangement is explained through claim 8 and 9 in D4.

[49] Claims 8 and 9 of the Muenchau Patent read as follows:

> 8. The system of claim 1, further comprising *a second sensor* component *for sensing radiation from the radiation source that is outside of the scanning zone*.
>
> 9. The system of claim 8, wherein the second sensor component is coupled to the shutter and further wherein the shutter is automatically closed in response to a radiation signal from the second sensor component. (Emphasis added.)

[50] However, from reading claim 8, I agree with the plaintiff that the second sensor component in the Muenchau Patent is for the purpose of sensing radiation from the radiation source that is outside the scanning zone and to actuate the shutter to move it into a close position automatically. The second sensor component, therefore, has nothing to do with detecting whether a part to be shielded of the moving object passes into the passage or not, as in MY '862.

[51] Added to that, the evidence of another third party witness, Mr Wang Shao Feng has clearly contradicted the findings of Mr Murali, when he said this in Q&A1 of his supplementary witness statement (WS-3PW2 supplementary):

> In my opinion, 'the first sensor component' stated in D4 clearly is equivalent to 'the second detecting unit' stated in patent '862.

[52] However, in equating the first sensor component to the second detecting unit in the '862 Patent, Mr Wang was employing the doctrine of equivalents in carrying out his analysis. He admitted to this during his cross-examination by counsel for the plaintiff.

> PC1: Now may I take you to your supplementary witness statement, Mr Wang in your answer No 1 in your supplementary witness statement, the last two lines 'the first sensor component in D4 is equivalent to the second detecting unit in patent 862'?
>
> TW2: Yes.
>
> PC1: Mr Wang, when you say equivalent, you are using the doctrine of equivalents, correct?
>
> TW2: Yes.

(See p 386 NP)

[53] I agree with the submission of learned counsel for the plaintiff that little reliance can be place with the evidence of the third party witness when Mr Wang has contradicted Mr Murali's findings and that Mr Wang has also wrongly applied the doctrine of equivalents in carrying out his analysis, when

the applicable law in Malaysia in the construction of claims is the doctrine of purposive construction and not the doctrine of equivalents.

[54] In the case of *Cadware Sdn Bhd v Ronic Corporation* [2013] 6 MLJ 19, the Court of Appeal (albeit in considering the issue of claim construction for the purposes of determining infringement) affirmed that the doctrine of purposive construction, as expounded in the landmark House of Lords case of *Catnic Components Ltd & Anor v Hill & Smith Ltd* [1982] RPC 183 is applicable in Malaysia.

[55] Bearing in mind that the onus is on the third party to establish that 'each and every ingredient, element of the claimed invention must be present in a single prior art ...', I am of the considered opinion that the third party has failed to prove on the balance of probability that the MY '862 Patent lacked novelty. The third party has failed to establish that each and every ingredient of claim 1 of MY '862 Patent is present in the Muenchau Patent. Therefore, I find that the Muenchau Patent does not anticipate MY '862 Patent and that the plaintiff's Patent MY '862 is novel.

Whether Patent MY '862 lacked in inventive step

[56] The next issue is on inventive steps. Section 15 of the Patents Act 1983 provides that an invention shall be considered as involving an inventive step if such inventive step would not have been obvious to a person having ordinary skills in the art. Section 15 reads as follows:

> An invention shall be considered as involving an inventive step if, having regard to any matter which forms part of the prior art under para (a) of sub-s (2) of s 14, such inventive step would not have been obvious to a person having ordinary skill in the art.

[57] Parties are on common ground that the test to apply to determine whether an invention lacks inventive step (or is obvious) is set out in the case of *Windsurfing International Inc v Tabur Marine (Great Britain) Ltd* [1985] RPC 59 (as applied by the Court of Appeal in *Seng Kong Shutter*'s case) which held as follows:

(a) firstly, to identify the inventive concept of the claim in question;

(b) secondly, to identify the notional skilled addressee or person skilled in the art and the relevant common general knowledge of that person;

(c) thirdly, to identify the differences between the state of the art and the inventive concept of the claimed invention; and

(d) fourthly, without the benefit of hindsight, to decide whether the differences identified constitutes obvious steps to the notional person skilled in the art.

[58] The inventive concept of the MY '862 Patent is explained by the plaintiff's expert witness, Professor Koltick, who states that the MY '862 Patent is a system for the imaging inspection of a movable object (the product) and a dodging method thereof (the process). The movable object contemplated here includes a vehicle used to transport cargo, such as a cargo truck. In (Q&A 14), Professor Koltick added:

> ... The plaintiff's invention is intended to detect and dodge the vehicle cab, so that the driver is not subject to unsafe dosage/exposure of radiation during the inspection process.
>
> ... Compared to conventional art, the invention does not use a mechanical block plate but instead employs an electric system that controls the emission of the radiating beam with extremely rapid responsive speed and rapid control of beam intensity which allows much better imaging and more vehicles to be examined per unit time.
>
> ... The invention of the '862 Patent allows for recognition of a wide range of shapes and sizes of vehicles, and to dodge the cab section of these vehicles regardless of their shapes and sizes.
>
> The dodging method also requires that the beam off to on ratio to be extremely low, in order that the driver radiation dose be safe and acceptable. In addition, the rapid on — off capability of the system ensures that a 100% inspection ratio of the cargo is achieved.

[59] Under s 15 of the Patents Act 1983, the term 'person having ordinary skill in the art' is a notional person who is skilled in the subject matter, who has carefully read the relevant literature, must be unimaginative and incapable of a scintilla of invention. With regards to this notional person, our Court of Appeal in *Seng Kong Shutter Industries Sdn Bhd* has applied the principle in *Technograph Printed Circuits Ltd v Mills & Rockley (Electronics) Ltd* [1972] RPC 346 where Lord Reid held as follows:

> To whom must the invention be obvious? It is not disputed that the *hypothetical addressee is a skilled technician who is well acquainted with workshop technique and who has carefully read the relevant literature. He is supposed to have an unlimited capacity to assimilate the contents of, it may be, scores of specifications but to be incapable of a scintilla of invention* ... (Emphasis added.)

[60] Parties are also on common ground that the 'person skilled in the art' is essentially a legal role which must be assumed by this court. The court must construe the patent objectively, assuming the mantle of the hypothetical

notional person skilled in the art to whom the patent is directed and in the light of the common general knowledge with which he is assumed to be imbued. In the *Windsurfing International Inc* case, the court held that:

> ... Thereafter, *the court has to assume the mantle of the normally skilled but unimaginative addressee in the art* at the priority date and to impute to him what was, at that date, common general knowledge in the art in question.
>
> ... Finally, *the court has to ask itself whether, viewed without any knowledge of the alleged invention, those differences constitute steps which would have been obvious to the skilled man or whether they require any degree of invention* ...

[61] Another general principle is that in dealing with inventive steps, it is permissible to 'mosaic' or combine the relevant prior arts. In *Technograph Printed Circuits Ltd*, the court held as follows:

> ... When dealing with obviousness, unlike novelty, it is permissible to make a 'mosaic' out of the relevant documents, but it must be a mosaic which can be put together by an unimaginative man with no inventive capacity.

[62] With reference to the textbook of *Terrel on the Law of Patent* (paras 8–11, p 201), the relevant art and the field in which the notional skilled person operates should also be apparent from the patent specification.

[63] In the present case, since the MY '862 is for a system for image inspection of movable object and dodging method, then the person skilled in the art must be a technical person in the subject matter of the invention. In *Catnic Components Ltd*, Lord Diplock held that a person having ordinary skill in the art is a person who is likely to have a 'practical interest in the subject matter' and such person is those 'with practical knowledge and experience of the kind of work in which the invention was intended to be used'. This has been adopted by the Court of Appeal in *Ranbaxy (M) Sdn Bhd* where Justice Ramly Ali held that the relevant witness DW6 and DW7 'are persons skilled in the art and persons having a practical interest in the subject matter of the invention'.

[64] Based on the scope of the MY '862 Patent, I am of the considered opinion that the plaintiff's expert witness, Professor Klotick qualifies as a person skilled in the art as well as having a practical interest in the subject matter of the invention. His CV discloses a strong background in the research relating to the field of scanning and imaging systems.

[65] On the issue of inventive steps, the defendants have offered Professor Jasmy Yunus ('DW2') as an expert witness on technical matters. Professor Jasmy Yunus is the Dean of the Faculty of Health Science and Biomedical Engineering, University of Technology, Malaysia. Professor Jasmy Yunus have

vast experience as an academician, involving in teaching, R&D, writing, consultancy activities and administrative duties. As a technical person, I also find that Professor Jasmy Yunus qualifies as a person skilled in the art.

[66] However, with regards to the evidence of Professor Jasmy Yunus, his expert report did not deal with the invalidation issue, as can be seen from para 1.3 of his report, which reads:

> 1.3 Issues asked to consider
>
> The issue that I have been asked and requested to provide my opinion on can be summarised as follows:
>
> > My opinion on whether the person skilled in the art would find the integers of the claim of the patent are present in the defendant's supplying or inspection system.

[67] In his oral evidence in court, Professor Jasmy made certain representations with respect to one prior art only, CN1378934, the Train Patent, titled 'Train radiation safety interlock method and system adopting cobalt — 60 for the inspection of freight train'. Relying on the oral evidence of Professor Jasmy, the defendants submit that the plaintiff's MY '862 Patent lacked in inventive steps as the plaintiff's patent is merely to combine or put together the working concepts of the Train Patent with the technical advancements in the Linac system in the Zhou Patent ('D2').

[68] However, I agree with the plaintiff that the defendant's reliance on Professor Jasmay's evidence on lacking in inventive steps is misplaced as Professor Jasmay has given evidence that he would not have considered the Train Patent and the Zhou Patent (which dealt with Linac) if the documents have not been given to him by the third party. As such, Professor Jasmay did not find it obvious that the Train Patent and the Zhou Patent are relevant prior arts document.

[69] The third party relied on the evidence of Mr Mohan Murali Kodival, who is a patent and trade mark agent in Malaysia. Mr Mohan gave evidence that his job scope includes 'drafting patent specifications and application, advising clients on wide ranging issues involving patent applications and prosecutions in Malaysia, including advising on validity and/or infringement of patent ...' (see Q2/WS39W4). Mr Murali has prepared a report whereby he gave an opinion that the plaintiff's patent MY '862 lacked inventive steps through several combinations of the prior arts.

[70] However, there is nothing to show that Mr Murali did any research relating to the field of scanning and imaging systems, the subject matter of MY '862 Patent. Further, under cross examination, Mr Murali agreed with the

plaintiff's contention that he is not a person skilled in the art, nor is he a technical expert who can assist this court in interpreting the claims. In his evidence, Mr Murali said this:

> PC1: No, just answer my question. *Are you suggesting yourself as a person who is skilled in the art, a technical expert who is here to assist the court in interpreting this claim*? As a technical expert?
>
> TW4: No.

(See p 458 NP)

[71] Therefore, since Mr Murali is not a technical person in the relevant area, he may not give an expert opinion outside the field of his expertise. In *Public Prosecutor v Lin Lian Chen* [1992] 2 MLJ 561, the court held that a government chemist of some standing with science degree (majoring in chemistry) did not establish his expertise in the analysis of dangerous drugs such as heroin.

[72] The third party also relied on the evidence of Mr Wang Shau Feng (3PW2/TW2). Mr Wang is a technical witness dealing with several prior arts and worked as a senior hardware engineer with the third party. However, I agree with the submission of the plaintiff that bearing in mind that Mr Wang is an employee of the third party, and was involved in the Johor Bahru CIQ system, the independence of his testimony is called into question. Since Mr Wang is an employee of the third party, and particularly since he has been directly involved in the system operating at CIQ Complex, JB, it would be in his personal interest to ensure that either (a) the MY '862 Patent is invalidated; or (b) that the system at CIQ Complex, JB is found to be not infringing the MY '862 Patent.

[73] In any event, and looking at the merits of the issue, it is the submission of the third party that the plaintiff's patent lack in inventive steps premised on the prior arts, namely the Train Patent and related article, the Bermbach Patent, the CAB 2000 and the Euroscan articles.

The Train Patent and related articles

[74] With regards to the Train Patent and its related articles, I agree with the evidence of Professor Koltick that the Train Patent and its related articles are not relevant prior arts because they deal with specific purpose, involving only trains. I also accepted Professor Koltick evidence where he has identified several differences between the Train Patent and the MY '862 Patent, which would not render the MY '862 Patent obvious. The differences are as follows:

(a) the Train Patent is a mechanical system based on interlock method whereas the MY '862 Patent uses electronic system with pattern recognition;

(b) MY '862 is fully automatic, whilst the Train Patent requires human intervention for a scan to take place. Human intervention is required to distinguish passenger trains from the freight trains, as only freight trains will be scanned. At p 1885/B9, the Train Patent reads:

> ... The train is identified as a freight train only when the *system receives the manual confirmation signal* of the freight train and the identification result based on wheel distances method or carriage gap counting method is the freight train;

(c) further, the MY '862 Patent involves an accelerator, but the Train Patent uses a permanent radiation source, cobalt 60.

[75] Added to that, the contradictions between the evidence of Professor Jasmy, Mr Wang and Mr Murali in respect of the elements in the Train Patent which they thought were the functional equivalents of the first detecting unit and the second detecting unit in the MY '862 Patent clearly show that they are not in agreement over how the Train Patent would have rendered the invention in the MY '862 Patent obvious. The different positions taken by Professor Jasmy, Mr Wang and Mr Murali are as follow:

Feature in MY '862 Patent	First Detecting Unit	Second Detecting Unit
Professor Jasmy ('DW2')	C11	C5–C7
Wong Shao Feng ('3PW2')	C11, C2–C4, C8–C9	C5–C7, C8–C9
Mohan Murali Kodivel ('3PW4')	C11, C2–C4	C5–C7

The Bermbach Patent

[76] The Bermbach Patent relates to a device for monitoring the contents of containers and trucks which allows detection of large items, especially concealed passenger cars.

[77] With regards to the Bermbach Patent, I accept the evidence of Professor Koltick that it is not obvious for a skilled person to jump from the Bermbach Patent to the MY '862 Patent for the following reasons:

(a) that the Bermbach Patent does not have a first detecting unit configured to detect whether or not a moving object to be inspected moves into a passage;

(b) that the Bermbach Patent does not have a second detecting unit configured to detect whether a part to be shielded of the moving object passes into the passage or not;

(c) that the Bermbach Patent does not have a second detecting unit configured to generate a passing signal after the first detecting unit detects that the moving object to be inspected moves into the passage; and

(d) that the Bermbach Patent does not have a control system configured to generate a control signal for controlling the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit.

[78] Added to that, the evidence of both Mr Wang and Mr Murali differs with regards to how a person skilled in the art may conclude that the MY '862 Patent may be obvious from the Bermbach Patent. Mr Wang suggested that one only need to combine the Bermbach Patent with an extra light barrier, whereas Mr Murali is of the view that the Bermbach Patent must be combined with the Train Patent, the Zhou Patent, the Muenchou Patent and the Yamada Patent, in order to achieve the MY '862 Patent. Therefore, the divergence in the evidence of both Mr Wang and Mr Murali clearly shows that the MY '862 Patent is not obvious from the Bermbach Patent and/or in combinations with the other patents.

[79] Added to that, I accept the evidence of Professor Koltick that by simply placing a light barrier at the front and calling it the first detecting unit for Bermbach Patent does not distinguish between an object to be scanned or otherwise. In other words, the proposed extra light barrier at the front would not achieve the purpose characterised by the first detecting unit in the MY '862 Patent, namely to detect whether a moving object to be inspected moves into a passage or not.

CAB 2000 Product

[80] Mr Wang gave evidence that the CAB 2000 Product has elements that are the equivalents of the features of the MY '862 Patent, namely a passage, two light barriers, and a scan imaging device that includes a control system.

[81] However, it cannot be said to be obvious as it is not a fully automated system as in the MY '862 Patent, and requires a minimum of two operators. The CAB 2000 Product is a system that requires human intervention, as is obvious from the technical information set out in B8, p 1702, which calls for 'minimum crew: two operators'. In fact, under cross-examination, Mr Wang

conceded that the CAB 2000 Product, as depicted in slide 12 of the annexure to his witness statement, requires a minimum of two operators, that is, it is not a fully automatic system:

PC1: Now Mr Wang, look at one line above it at p 1702 B8, it says minimum crew, 2 operators. Correct?

TW2: Yes.

PC1: *Therefore there must always be human intervention is CAB 2000, is that correct?*

TW2: *Yes, but then it still depends on the plan*.

PC1: According to this specification *it requires at least 2 human personnel*.

TW2: *Yes*.

PC1: Now Mr Wang, may I refer you to the next slide, slide No 12.

TW2: Yes.

PC1: Now Mr Wang, this is what you also call CAB 2000 from Heimann?

TW2: Yes.

PC1: Now, compare this to p 1702 of B8, apart from some dimensions, the other structures here are identical, correct?

TW2: Yes.

PC1: Therefore, *to run or to operate the system* on this slide No 12 in your appendix 2, *you would also need a minimum crew of 2 operators, correct?*

TW2: In this technical data, yes, it recommends 2.

PC1: Not recommend. *It stipulates minimum 2?*

TW2: *Yes.*

(See p 383 NP)

The Euroscan Articles — 'Accelerator based x-ray facilities applied to freight control' by G Gaillard

[82] The third party, through evidence led by Mr Wang Shao Feng ('3PW2'), attempted to argue that the MY '862 Patent's first detecting unit has been disclosed in the Euroscan Article, with specific reference to a schematic plan showing a light barrier located at the entry to the tunnel. On the strength of this piece of evidence, Wang Shao Feng concluded that the first detecting unit is part of common general knowledge in 1991.

[83] However, under cross-examination, Mr Wang has agreed that the four steps in the Euroscan article are completely different from the plaintiff's MY '862 Patent:

PC1: Alright then I'll move on to Euroscan which is slide 11. May I refer you to B11 p 17. This is the figure that is taken from B11 p 17, correct?

TW2: Yes.

PC1: Mr Wang can you please read the passages that describe figure 1 on p 17. The two columns, it says 'figure 1 shows a schematic drawing of the Euro tunnel scan. Then there are 4 steps'. Correct?

TW2: Yes.

PC1: *Do you agree that these 4 steps are completely different from the 862 Malaysian patent?*

TW2: *Yes*.

(See p 386 NP)

[84] Premised on the reasons enumerated above, I am of the considered opinion that both the defendants and the third party have failed to establish, on the balance of probability, that the MY '862 Patent lacked in inventive steps. Apart from Mr Murali, who is not a person skilled in the art, I find that the evidence of Professor Jasmy and Mr Wang have failed to show how the related prior arts would have made it obvious to arrive at the MY '862 Patent.

[85] Therefore, on the issue of invalidation of the MY '862 Patent, I am of the considered opinion that both the defendants and the third party have failed to establish their respective cases, on the balance of probability, that the MY '862 Patent is not novel and does not involve any inventive step. In the premise, I will dismiss the defendants' counterclaim and the third party suit with costs.

Issue (3): Whether the defendants' BT Scan have infringed the plaintiff's MY '862 Patent

[86] In view of my finding that the MY '862 Patent is valid, I will now deal with the issue of infringement. Infringement of patent is provided under s 58 of the Patent Act 1983, which reads:

58 Acts deemed to be infringement.

Subject to sub-section (1), (2) and (3) of section 37 and section 38, an infringement of a patent shall consist of the performance of any act referred to in subsection (3) of section 36 in Malaysia by a person other than the owner of the patent and without the agreement of the latter in relation to a product or a process falling within the scope of protection of the patent.

[87] In construing patent claims for infringement, the Court of Appeal in *Cadware Sdn Bhd v Ronic Corporation* has adopted the doctrine of purposive

construction developed by the House Of Lords in the *Catnic v Hill & Smith.* In *Catnic*'s case, Lord Diplock succinctly spelled out the doctrine of purposive construction as follows:

> *To determine whether a claim of a patent has been infringed one must first discover what is claimed. The claim must be construed and analysed to ascertain what are the features — sometimes called the integers — of the subject matter for which a monopoly is claimed.* The claim must be construed in the context of the specification as a whole and in the light of any admissible evidence. It must be read and interpreted as it would be read and interpreted by the notional addressee of the specification, that is to say, a man skilled in the relevant art who has at his disposal the common knowledge in that art at the date of the publication of the specification. When so construed the claim must be analysed to discover what are the several features of the thing for which a monopoly is claimed. *One must next consider the alleged infringement to determine whether it infringes the claim. If the alleged infringement of the claim has all the features of the claim it must infringe the claim, even if it also incorporates other features*.

[88] In *Lim Choong Huat & Ors v SYNTLZ Enterprise Sdn Bhd & Ors* [2010] 1 CLJ 860, the court held that the infringement tests require one to consider three factors:

(a) determine the essential integers of the plaintiff's patent;

(b) once the essential integers are determined, one must then consider whether 'each' and 'every' 'essential' integer is taken by the defendant; and

(c) determine whether each of the defendant's integers 'works' the 'same way' as claimed by the plaintiff in their patent.

[89] In the present case, the plaintiff has claimed that the defendants and the third party have infringed claim 1, 7, 8, 9, 11 and/ or 12. Both claim 1 and 9 are independent claims, whereas claim 7, 8, 11 and 12 are dependent claims.

[90] It is the plaintiff's case that the essential integers of claim 1 are as follows:

(a) a first detecting unit configured to detect whether a moving object to be inspected moves into a passage or not;

(b) a second detecting unit configured to detect whether a part to be shielded of the moving object passes into the passage or not and generate a passing signal after the first detecting unit detects that the moving object to be inspected moves into the passage;

(c) a scan imaging device configured to emit radiating beams for inspecting the moving object to be inspected by scanning; and

(d) a control system configured to general control signal for controlling the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit.

[91] Claim 7 is a claim dependent from claim 1 and it calls for the moving object to be inspected to be a vehicle.

[92] Claim 8 is a claim dependent from claim 7 and it calls for the moving object to be inspected to be a vehicle and the part to be shielded is a driving cab of the vehicle.

[93] With regards to claim 9, the plaintiffs submit that the essential features are a dodging method comprising:

(a) a first determining step of judging whether a moving object to be inspected moves into a passage or not;

(b) a second determining step of judging whether a part to be shielded of the moving object passes through a radiating scan area in the passage and generate a passing signal; and

(c) a scan imaging step of generating a control signal for controlling a scan imaging device to generate radiating beams according to the passing signal, after judging that the part to be shielded passes through the radiating scan area, to emit radiating beams to the passage and inspect the moving object by scanning to dodge the area to be shielded.

[94] Claim 11 is a claim dependent from claim 9 and it specified that the moving object to be inspected to be a vehicle.

[95] Claim 12 is a claim dependent from claim 9 and it specified that the part to be shielded of the moving object is a driving cab of the vehicle.

Whether claim 1 has been infringed

[96] From the defendant's submission in para 2.12, the defendants agree with the plaintiff that the essential features of claim 1 are a screening system comprising of:

(a) a first detecting unit configured in the manner stated therein;

(b) a second detecting unit configured in the manner stated therein;

(c) a scan imaging device configured to emit radiating beams for inspection; and

(d) a control system configured in the manner as stated therein.

[97] However, it is the submission of the defendants that the defendants' screening system is different from the plaintiff's MY '862 Patent in the following manners:

(a) the defendants' screening system does not have the first essential feature, that is, a first detecting unit;

(b) even if the first essential feature is considered as having been taken, it does not work or function in the same way; and

(c) the defendants' screening system does not have the third essential feature, that is a scan imaging device that employs Linac as the source of radiation beams.

[98] The third party also submits that the BT Scan system at the CIQ, Johor Bahru is different from the plaintiff's MY '862 Patent in the following terms:

(a) that the first 'first detecting unit' at BT Scan system at CIQ is actually part of a barrier system and license plate recognition system, and is not part of a detecting unit to 'detect whether a moving object to be inspected moves into a passage or not'; and

(b) that the BT Scan system uses a different type of radiation source, the BETATRON, as compared to the LINAC system in MY '862 Patent.

[99] Therefore, essentially both the defendant and the third party alleged that the BT Scan system at the CIQ, Johor Bahru does not have the first detecting unit that performs the function as described in claim 1 of the MY '862 Patent, that is to detect whether a moving object to be inspected has moved into the passage or not. The other difference is the use of Betatron in the BT Scan, as opposed to Linac in MY '862 Patent.

[100] The general overview of the BT Scan system at the CIQ, Johor Bahru is as follows:

Integer 1 — Whether the BT Scan has the first detecting unit

[101] However having considered the evidence before me, I am of the considered opinion that from the evidence elicited from both the witnesses for the defendants and the third party, they have agreed under cross-examination that the BT Scan has a first detecting unit that is to detect whether a moving object to be inspected has moved into the passage or not:

(a) the defendant's witness — Professor Jasmy bin Yunus ('DW2')

PC1: So you would agree that it is possible that in *construing first detecting unit that one of the purposes is also for safety, correct*?

DW2: Ok, in that respect yes.

PC1: Now Professor Jasmy, let's look at the JB system at the CIQ complex. *When does one know when if it is safe to enter the passage for scanning?*

DW2: For the *lorry driver, he just look at the red light and the green light at the entrance. If it's green, he goes in*.

PC1: And there's also the *ground coil* of course.

DW2: *Yea, of course*.

PC1: So this tells the lorry driver that he should go in because it is safe to be scanned?

DW2: Because the system is operational, and it's safe to be scanned, yes.

...

J: In other words, it's only vehicles that I meant to be scanned goes there?

DW2: Yes.

PC1: And you mean that Professor Jasmy, there is no other safety feature in the JB complex to ensure that someone who is not supposed to be there does not enter the passage?

DW2: I think that one is equivalent to what I mentioned earlier, I was answering to Professor Koltick's point about that one. It's already been highlighted just now. I don't have the document here, oh yeah I have it here, yes. This is page 2 answer 72 yes?

PC1: Page 2, Professor Koltick's page 2 is it?

DW2: Yes, where he pick up from volume 3 page 470 of CBOD.

PC1: Ok, that is in Professor Koltick's supplementary statement. Yes, can you carry on?

DW2: It mentions there in that particular line, that particular paragraph that's taken from page, from CBOD 3. OK, and it says there when someone enters guard rails, indicator line on the attachment communication screen will flicker, buzzer will alarm and operator will checking the screen, will get the person to leave, yes.

PC1: Yes.

J: Control system?

DW2: Yes.

PC1: Ok, so that is present also in the JB system. Isn't that right?

DW2: Yes.

PC1: So *the JB system can detect someone or rather a moving object that has mistakenly entered into the passage when it is not supposed to scan right*?

DW2: *Yes*.

(See pp 295–297 NP)

(b) third party witness — Hu Xiao Wei (3PW1–TW1)

PC1: Do you agree with me therefore, that *there must be a mechanism in the JB system that would give an alarm if an object not to be scanned or not to be inspected has moved into the passage? An alarm or indication*.

TW1: *Yes*.

...

PC1: So when I say objects I'm referring to moving objects.

TW1: OK.

PC1: Only a moving object can enter into the passage correct? You're sitting down you can't move, you can't enter, you can't ...

TW1: *Yes, only a moving object can go into the passage*.

PC1: *Right. Which is why my question earlier, your system can detect a moving object not to be inspected going into the passage, correct?*

TW1: *My system will know whether the object is not to be scanned*.

PC1: *Therefore, implicitly or otherwise, your system will detect moving objects to be scanned that have gone into the passage*.

TW1: *Yes*.

(See pp 214–215 NP)

[102] Therefore, from the above evidence of Mr Hu Xiao Wei, he has admitted under cross-examination that the BT Scan has sensors to detect the entry of moving object not to be scanned. DW2, Professor Jasmy also admitted under cross-examination that infringing system has sensors to detect the entry of moving object not to be scanned. Thus both Mr Hu and Professor Jasmy are on common grounds that there are sensors to ensure that not every moving object that moves into the passage of the BT Scan system is scanned.

[103] Therefore, I agree with the submission of the plaintiffs that the BT Scan does have a system that functions as the first detecting unit. The existence of the ground coil, boom gate and light curtain at the entrance of the passage could function as first detecting unit and they could also be absorbed to perform other things as well, such as licensing plate recognition. This can be seen from the following photo:

Integer 2 — Whether the BT Scan has the second detecting unit

[104] It is the submission of the plaintiffs that the second component in claim 1 of the MY '862 Patent calls for a second detecting unit to detect whether a part to be shielded of the moving object passes into the passage or not and generate a passing signal after the first detecting unit detects that the moving object to be inspected moves into the passage.

[105] With regards to the second detecting unit, it the evidence of DW2 that the same is present in the in the BT Scan:

PC1: Now, Professor Jasmy, you have been to the site at the JB CIQ complex?

DW2: Yes.

PC1: You have talked about the second detecting unit in your evidence?

DW2: Yes.

...

PC1: Good afternoon. Professor before the break we were discussing the additions and locations of the sensors in the JB system. And in your statement and in your report, you also referred to the second detecting unit?

DW2: Yes.

PC1: If you don't mind speaking into the microphone. *Is it fair to suggest to you that the sensors that we discussed, the three light curtains and the ground coil constitute the second detecting unit?*

DW2: *Yes*.

J: The second?

PC1: The second detecting unit. And is it fair to suggest to you that this second detecting unit comes within claim 1 of the patent claim? Just the second detecting unit.

DW2: I don't get what you mean by it comes in claim 1 of?

PC1: Well, it is similar or equivalent to claim 1 of the '862 Patent.

DW2: Ok. It's not claim 1. It's the second detecting unit ...

PC1: The second unit.

DW2: Second detecting unit?

PC1: The claim 1 of the '862 Patent has the first detecting unit, the second detecting unit ...

DW2: Yes, the second ...

PC1: And then the ...

DW2: Yes, I see your point, OK.

PC1: So, in so far as the second detecting unit in claim 1 is concerned ...

DW2: Agreed

PC1: Do you agree with me that the unit in JB has that second detecting unit?

DW2: Yes, Ok.

PC1: Sorry do you agree with me?

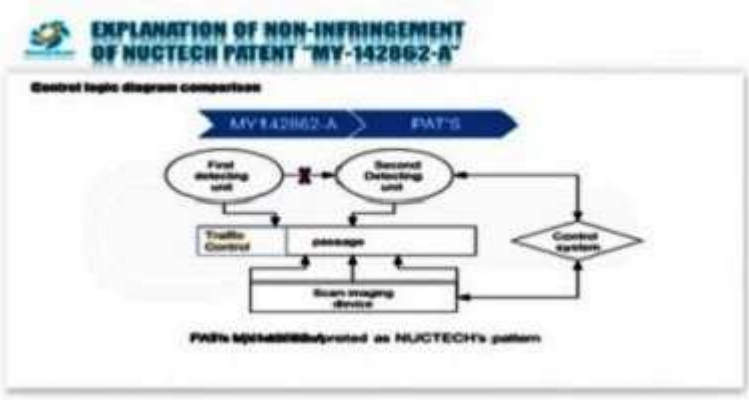
DW2: Yes.

(See pp 301–305 NP)

[106] I am also of the considered opinion that the witness of the third party had also admitted to the fact that the BT Scan installed at the CIQ, Johor Bahru also has the second detecting unit. In his witness statement, Mr Hu Shao Feng (3PW1) said that:

> Unlike the sensor adopted by 'the first detecting unit' claimed by Nuctech, the sensors applied in PAT's system are part of the barrier system and license plate number recognition system rather than to 'detect whether a moving object to be inspected moves into a passage or not'. *PAT system only uses 'the second detecting unit' claimed by Nuctech to control radiating beams*.

[107] In fact from his slide presentation to explain the difference between the MY '862 Patent and the PAT system (BT Scan), it is shown that the PAT system has the second detecting unit, a scan imaging device and a control system — (see slide 22 of WS–3P1):



[108] The difference, according to the above diagram is in the first detecting unit. This is further amplified by 3PW1 (Mr Hu Shao Feng) where he said that except for the first detecting unit, all other features in the PAT system (the BT Scan) are present as the components claimed in claim 1 of the '862 Patent:

TC1: Before that. Sorry, can I get the witness to confirm which unit is this?

TW1: The Nuctech patent '862 unit. The first and second detecting unit yang arif. One can see. This is the accelerator. Yang arif, one can see that at this time the microwave already on, and after passing the second detecting unit the x-ray is on. Yang arif one can see that when the truck moving, the words there 'on' or 'off' is changing from 'on' to 'off' and 'off' to 'on'. Ok, at this time the microwave is on, and now the x-ray is on. This is just a comparison, yang arif.

Now we go to page 21, yang arif. This is the PAT system, first detecting unit, which claim by Nuctech. This is a traffic barrier, yang arif, LRTR, LRPR, which is the car plate registration number identificator. This is the second detecting unit, yang arif. Now the car plate identificator already, just now is on.

Now we go to page 22, yang arif. This is the control logic diagram which is provided by patent '862. One can see very clearly that the first detecting unit and the second detecting unit were in fact interconnected. I would like to invite the Honourable Court to see this diagram. This is the PAT, this is '862 and this is PAT. This is the PAT system, yang arif.

J: *Everything is the same except for that?*

TW1: *Yes, yang arif. In fact everything is the same except the first detecting unit and the second detecting unit whether they are interconnected unit or independent*.

J: Ok.

(See pp 187–188 NP)

Integer 3 — Whether the BT Scan has the scan imaging device

[109] The third component of claim 1 of the MY '862 Patent calls for a scan imaging device configured to emit radiating beams for scanning the moving object to be inspected.

[110] From the evidence of the witnesses for the defendants and the third party, it is not in dispute that the BT Scan has a scan imaging device, such as the Betatron device.

[111] Added to that, the Betatron device in the BT Scan would fall within the meaning and scope of claim 1 of the MY '862 Patent. This was admitted during the cross-examination of 3PW1:

PC1: Therefore, do *you agree with me that scan imaging device in claim 1 includes a Betatron*?

TW1: *Yes*.

PC1: *Do you agree therefore with me that claim 1 does not distinguish between Betatron and LINAC?*

TW1: *Yes.*

(See p 205 NP)

[112] With regards to the assertion on the distinction between LINAC and BETATRON as the radiation source, Mr Hu agreed that the scan imaging device in claim 1 includes a Betatron and that claim 1 does not distinguish between Betatron and Linac. Further, Professor Jasmy also agreed that claim 1 applies only to accelerators, which would refer to Betatron.

Integer 4 — Whether the BT Scan has the control system

[113] The fourth component of claim 1 of the MY '862 Patent is a control system to generate a control signal for controlling the scan imaging device to generate the radiating beams according to the passing signal from the second detecting unit.

[114] It is also not in dispute that the BT Scan has a control system to control the Betatron device for scanning after the part to be shielded of the moving object inspected has passed the scanning area of the system. This is apparent from the evidence of DW2 during cross-examination:

DW2: No, the computer system, is a computer system.

J: Ok.

PC1: So Professor Jasmy, computer system read the information that it gets from the green light turning to yellow along the detector beam, horizontal detector beam, so as to pass the signal to the traffic lights and the boom gate?

DW2: It will not be the computer system getting the signal from that light green to yellow but the system itself detect the situation, the sensors around.

PC1: Ok.

DW2: Detects situation, now we're safe, therefore now, the computer system itself turn the light from green to red over there up there, sorry from green to yellow, as well as start everything else for ready. *So computer system controls all*.

(See pp 308–309 NP)

Infringement of claim 7

[115] Claim 7 is a dependent claim where it depends on claim 1 of the '862 Patent and calls for the moving object to be inspected to be a vehicle.

[116] In the present case, it is clear from the evidence available that the moving objects inspected by the BT Scan are vehicles. Thus, claim 7 is infringed by the BT Scan.

Infringement of claim 8

[117] Claim 8 is a dependent claim where it depends on claim 7 of the '862 Patent and calls for the part to be shielded to be the driving cab of the vehicle.

[118] In the present case, it is clear from the scan images of the BT Scan that the driving cab of the vehicles were shielded, or in other words dodged. Thus, claim 8 is infringed by the BT Scan.

Infringement of claim 9

[119] The features of claim 9 are:

A dodging method for a moving object being image inspected, comprising:

(i) A first determining step of judging whether the moving object moves into the passage or not;

(ii) A second determining step of judging whether a part to be shielded of the moving object passes through a radiating scan area in the passage and generate a passing signal; and

(iii) A scan imaging step of generating control signal for controlling scan imaging device to generate radiating beams according to the passing signal, after judging that the part to be shielded passes through the radiating scan area, to emit radiating beam to the passage and inspect the moving object by scanning to dodge the area to be shielded.

[120] With regards to claim 9, I accepted the evidence of Professor Koltick that the word 'dodge' or 'dodging' in the context of imaging, means '*exposing one part of an object to be scanned to substantially less radiation than the rest of the moving object during the scan imaging process*'. It cannot mean total evasion from radiation as contended by the defendant and the third party as it was conceded by Mr Hu that some amount of radiation will be absorbed by the driver during every scan.

[121] Having considered the evidence before me, I am of the considered opinion and I agree with the plaintiff that all the three steps claimed in claim 9 of MY '862 Patent are found in the BT Scan:

(a) that from the video showing the operation of the photographs (A) and (B) of WS-PW2 showing the sealed-over rectangular roadway cuts on the ground, a person skilled in the art would form the view that there is

a first determining step undertaken by the JB System to ascertain if a moving object to be inspected has entered the passage;

(b) that once the moving object is in the passage, the next step is to ascertain whether a part to be shielded of the moving object passes through a radiating scan area in the passage. From the scan images of the BT Scan, it is evident that the *driving cab of the vehicle has been dodged or avoided in the scanning process*. To achieve this, the BT Scan must have a means of sensing and ascertaining the location of the driving cab in order to determine when to commence and cease the scan imaging process. Hence, this element of claim 9 has been satisfied; and

(c) next is to consider the a scan imaging step. From the scan images of the BT Scan, there are clear proof that there is a scan imaging step. It is also evident from the scan images that the driving cab of the vehicle was dodged. In order to achieve this, the scanning process must only have commenced after the controlling means has ascertained that the part to be shielded has been successfully avoided.

[122] As such, I agree with the plaintiff that based on the scan images of the BT Scan, it is apparent that the steps in claim 9 were indeed carried out by the infringing system. I am therefore of the considered opinion that the BT Scan would infringe claim 9 of the MY '862 Patent.

Infringement of claim 11

[123] Claim 11 is a dependent claim where it depends on claim 9 of the '862 Patent and calls for the moving object to be inspected to be a vehicle.

[124] In the present case, it is clear from the evidence available that the moving objects inspected by the BT Scan are vehicles. Thus claim 11 is infringed by the BT Scan.

Infringement of claim 12

[125] Claim 12 is a dependent claim where it depends on claim 11 of the MY '862 Patent and calls for the part to be shielded to be the driving cab of the vehicle.

[126] In the present case, it is clear from the scan images of the BT Scan that the driving cab of the vehicles were shielded, or in other words, dodged. Thus, claim 12 is infringed by the BT Scan.

[127] Based on my reasons enumerated above, I find that the BT Scan at the CIQ, JB have infringed the plaintiff's MY '862 Patent.

Issue (4): Whether the defendants' BP Scan will infringe the plaintiff's MY '862 Patent

[128] It is the submission of the plaintiff that from the technical specification and the factory acceptance test ('FAT') protocol of the BP Scan, the following features have been observed:

(a) the technical specifications of both BT Scan and the BP Scan are highly similar;

(b) this system has a passage into which a moving object to be inspected would move, as the BP Scan have 'System Inner Tunnel Dimensions' of length 17m x width 4m x height 5.2m;

(c) this system is for the scanning of trucks and these trucks are moving objects, because the truck transit speed has been stated to be 3–15km/h;

(d) this system has a scan imaging device. The specifications call out for high energy beams of 3 and 6 MeV. This necessarily involves the use of an accelerator;

(e) this system is performing dodging because the allowed driver dose is 1/100th of the allowed cargo dose. If dodging is to be carried out, then there must be some form of detecting unit to determine the position of the part to be shielded. Hence, this form of detecting unit is the second detecting unit; and

(f) this system has a control system, because the documents call for a 'scan control' of a type that is by a programmable logic controller and automatic control by computer. This is further confirmed by the presence of a 'control room' in the design sketch for the infrastructure site and control room for the BP Scan.

[129] The plaintiff's contention above find support from the evidence of 3PW1, Mr Hu Xiao Wei, who gave the following evidence:

PC1: May I refer you to the FAT of BP Scan. B11, starting from page 25.

TW1: Yes.

PC1: Now may I refer you to B11 page 34. Is this identical to the system in BP Scan? Sorry, item 4.2.

TW1: Only the model number is not the same.

PC1: *The rest are the same?*

TW1: *Yes*.

(See p 216 NP)

[130] However, both the defendants and the third party takes the position that the BP Scan 'would not be having a dodging method' as contemplated under the MY '862 Patent. The FAT report disclosed that 'All parts of the scanned vehicle including the driver cab are displayed in the scanning image'.

[131] On this, under cross-examination, Mr Hu ('3PW1') confirmed that the only difference between the BT Scan at CIQ, JB and the new BP JB Scan is that the BP Scan relates to the scanning of the driver cab:

> PC1: Mr Hu, may I refer you to your first witness statement. Er pages 13, Pages 13 and 14. I'm sorry, page 10 and 11. At the bottom of page 10 and top of page 11. At the bottom of page 10 and the top of page 11. At the bottom of page 10 Mr. Hu, PAT CIQ system, do you agree with me that you were referring to the JB system?
>
> TW1: Yes.
>
> PC1: And if you turn the page to page 11, *PAT new system you were referring to the BP scan, is that correct?*
>
> TW1: *Yes*.
>
> PC1: *Right. So the only difference between the JB system and the BT Scan and the PAT new system which is the BP scan relates to scanning the driver cab, is that correct?*
>
> TW1: *Yes.*

(See p 230 NP)

[132] Mr Hu has agreed that the only difference between the BT Scan at CIQ, JB and the new BP JB Scan is that the BP Scan relates to scanning the driver cab. In the BP Scan, the driver cab will be scanned, but the radiation level applicable to the driver is much lower than the dose applicable to the cargo section. The driver will subject to the dosage of 0.03 microsieverts. Since the driver cab is subject to the scanning, the Defendant submits that there is no dodging as in MY '862.

[133] However, Mr Hu also agreed that during every scan, some amount of radiation will be absorbed by the driver and that the amount of radiation absorbed by the driver will be limited due to safety concerns. It is also not in dispute that Customs Malaysia specification requires that the driver shall not receive a radiation dose exceeding 0.1. microsieverts. At the same time, Mr Hu also agreed that the 'shielding feature and the dodging feature of the '862 Patent is also due to safety reasons'. Under cross-examination Mr Hu said this:

> PC: The *amount of radiation absorbed by the driver is limited because of safety concerns, isn't that correct?* Is limited because of safety concerns.
>
> TW1: *Yes*

PC: And the *shielding feature and dodging feature of the '862 Patent is also due to safety reasons, isn't that correct?*

I: Is for safety reason ah?

TW1: *Yes*.

(See p 220 NP)

[134] Therefore, I agree with the plaintiff that the low dosage of radiation emitted to the driver cab, at 0.03 micosieverts served the same purpose as the shielding and dodging feature of the MY '862 Patent, which is safety concerns for the driver. Thus, the low dosage of radiation used to scan the driver cab in the BP scan is a similar concept to the dodging system as the amount of radiation emitted is limited dues to safety reason, as in the MY '862 Patent.

[135] As Mr Hu has agreed that the only different feature in the new BP Scan, as compared with the BT Scan lies in the scanning of the driver cab, and in view of my finding that it serves the same purpose as the MY '862 Patent, I am therefore of the considered opinion that just like the BT Scan which I found to have infringed the MY '862 Patent, the BP Scan will also infringe the MY '862 Patent.

Issue (5): Whether the third party has to indemnify the first defendant in the event of infringement

[136] In view of my finding that the BT Scan at the CIQ, JB have infringed the plaintiff's MY '862 Patent, the next issue is whether the third party has to indemnify the first defendant.

[137] It is not in dispute that the first defendant's BT Scan was supplied and delivered by the third party pursuant to the contract dated 19 September 2011. It is also not disputed that under clause 4.2 and clause 27.2 of the contract that the third party will be liable to indemnify the first defendant against all action, claims and liabilities on account of infringement of rights of intellectual property. In the premise, I will allow the first defendant's claim for indemnity against the third party.

Issue (6): Whether the second, third and/or fourth defendants are jointly and/or severally liable to the plaintiff

[138] With regards to the plaintiff's claim against the second, third and fourth defendants, the only evidence is the admission by the second defendant that he had procured the contract from Royal Customs through his own means and expertise. As such, I find that the second defendant is liable as a joint tortfeasor

for the acts of infringing the plaintiff's MY '862 Patent by the first defendant. The claim against the third and fourth defendants is dismissed with cost of RM10,000 for each defendant.

CONCLUSION

[139] To conclude, the plaintiff's claim against the first and the second defendants and its counterclaim against the third party are allowed with costs. The defendants' counterclaim and the third party's claim are dismissed with costs.

[140] The defendants' claim against the third party for indemnity is allowed with costs.

Order accordingly.

Reported by Afiq Mohamad